DOI's Vision For Offshore Wind: Obstacles And Opportunities

By Mark Kalpin, Gerald Morrissey and Marne Sussman (January 10, 2022)

The U.S. Department of Interior recently announced that the Biden administration would be opening up the U.S. coastline to large-scale offshore wind farming. Under the DOI plan, the agency's Bureau of Ocean Energy Management, or BOEM, could sponsor up to seven offshore lease sales by 2025 in the Gulf of Maine, the Gulf of Mexico and the New York Bight, as well as off the coasts of the Mid-Atlantic states, the Carolinas, California and Oregon.

Although the DOI's recent announcement is a promising step toward catalyzing offshore wind development, BOEM and developers will confront distinct obstacles in attempting to construct wind turbines along the coastal U.S. Even once projects are identified and approved, they will still face lengthy federal, state and local permitting reviews.

This article provides an overview of considerations for developers and other stakeholders who have potential interest in taking advantage of the opportunities arising from the Biden administration's recent announcement.

DOI Secretary Deb Haaland announced in October 2021 that the administration's plan to open up the U.S. coastline to wind power. Haaland described the plan at a wind industry conference in Boston.

The announcement followed the administration's earlier pledge to build 30 gigawatts of offshore wind energy by 2030 — a pledge that is pivotal to the administration's plan to cut the nation's fossil fuel emissions 50% from 2005 levels by 2030. In line with this goal, on May 11, 2021, BOEM approved Vineyard Wind, the nation's first major commercial offshore wind farm, to be located off the coast of Martha's Vineyard in Massachusetts.

In addition, in late November 2021, the DOI approved the construction and operation of the 132-megawatt South Fork Wind Project off of Rhode Island and Long Island, New York.

Earlier in 2021, the DOI announced a proposed lease auction for offshore wind development on the Outer Continental Shelf, or OCS, in the New York Bight, the area of water between Long Island and the New Jersey coast. BOEM has also considered wind projects elsewhere, including off the coast of California.

Geographical Considerations

California

Although California's offshore wind planning processes have languished in comparison to some East Coast states — e.g., Massachusetts — that is quickly changing. BOEM's announcement dovetails with recent developments in California aimed at stimulating the deployment of offshore wind projects.



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For example, the California Legislature recently enacted a piece of milestone legislation, A.B. 525, that requires state agencies to develop offshore wind megawatt targets for 2030 and 2045. At the same time, BOEM is actively engaged in the leasing process for two "call areas" off the California coast: (1) the Humboldt Call Area, off the North Coast, and (2) the Morro Bay Call Area, off the Central Coast.[1]

Indeed, on Nov. 12, 2021, BOEM announced its designation of the Morro Bay Wind Energy Area, which triggers environmental review and related public comment under the National Environmental Policy Act, or NEPA.

But to realize the full fruition of the state and federal strategies, agencies and stakeholders must address a number of technological, infrastructure and regulatory questions specific to California. For example, offshore wind development in California is largely expected to be comprised of floating wind turbines, given that the vast majority of the West Coast OCS reaches depths greater than 60 meters — the limits of ocean floor-mounted foundations.

Floating wind projects are not yet widely deployed, in contrast to their ocean floor-mounted counterparts. However, at least two floating projects are in operation in Europe and are a harbinger of the technology's potential: the 30 MW Hywind project in Scotland, and the 24 MW WindFloat Atlantic project in Portugal.

Assuming that the technological challenges are surmounted, neither the Humboldt or Morro Bay Call Areas are in immediate proximity to major population centers. The Humboldt Call Area has enough estimated generation potential to power more than 1 million homes — yet Humboldt County as a whole has only approximately 60,000 homes.[2]

Consideration must be given to the extent to which existing transmission and distribution infrastructure can transport electricity from these call areas to more densely populated areas, which for both areas are significant distances away. The nearest major urban center to the Humboldt Call Area is the San Francisco Bay area, approximately 280 miles away. The nearest urban area to Morro Bay is Ventura County, approximately 150 miles away.

It is similarly unclear whether the call areas have sufficient port resources to accommodate the ingress and egress of project components, due to their nature as small, rural coastal communities.

Future California offshore wind projects will need to satisfy state-level environmental review requirements under the California Environmental Quality Act, or CEQA, in addition to the federal NEPA review required of all offshore projects. Even projects located solely on the OCS are likely to have impacts in state and local jurisdictions — e.g., onshore infrastructure such as port upgrades, nautical and automatic transportation, transmission lines and power grid upgrades.

CEQA requires lead agencies, including municipalities, to analyze, adopt and implement feasible mitigation measures to the extent practicable to avoid or reduce significant impacts. This requirement, which is a cornerstone of California environmental law, can add time and expense to project approval and implementation.

Texas and the Gulf of Mexico

Texas has long embraced wind power. In 2005 and 2008, the Texas Legislature and the Public Utility Commission of Texas created Competitive Renewable Energy Zones, or

CREZs, in order to facilitate the development of wind resources in resource-rich areas such as the panhandle and west Texas, and then transmit that energy to areas of high energy demand such as cities in central and east Texas.

After Winter Storm Uri hit the state in February 2021, however, renewable resources — including wind resources — have come under scrutiny, due to their intermittent operating characteristics. But offshore wind has different operating characteristics than inland CREZ wind resources, and would be located in a warmer climate zone, thus providing potential reliability benefits compared to CREZ wind resources.

In terms of the Gulf of Mexico more broadly, the DOI and BOEM published two studies in 2020 showing that the Gulf is an attractive location for offshore wind development.[3] The studies found that more than 500 GW of potential offshore wind development may be possible in the Gulf, with such developments becoming economically competitive in the market without subsidies by 2030.

The studies identified several geographic areas of interest, which will likely inform the areas selected for leases in this most recent effort. Pursuant to this, on Oct. 28, 2021, the DOI announced that it would publish a call for information and nominations to further assess commercial interest in wind energy leasing in an area within the Gulf of Mexico consisting of 30 million acres, from just west of the Mississippi River to the Texas/Mexico border.

The call was published in the Federal Register on Nov. 1, triggering a 45-day comment period that ended on Dec. 16, 2021. BOEM is now proceeding to conduct an environmental review and solicit public feedback. According to the agency's published timeline, any lease sales arising from the call are expected to occur approximately one year after the publication of the call.

The Road Forward

The DOI's recent announcement is a promising step toward catalyzing offshore wind development. Despite this important action, however, a number of substantial challenges will remain for developers seeking to construct offshore wind projects on the OCS.

On Nov. 19, 2021, Vineyard Wind LLC announced that it had commenced construction of the Vineyard Wind 1 Project off the coast of Massachusetts. In order to reach that point, the project developer had to successfully achieve the following milestones:

- \$2.3 billion senior secured debt financing from a syndicate of nine banks;
- Contracts for supply and installation of approximately 130 miles of 66-kilovolt interarray cables;
- A contract with a major U.S.-based company for 62 wind turbines, each producing 13 MW;

- Contracts for a foreign heavy lift installation vessel, as well as federal Jones Actcompliant feeder vessels, for onsite installation out of New Bedford Harbor; and
- The recent announcement of partnership with another company to develop a new, deepwater offshore wind marine terminal, presumably for use with a not-yet-constructed Jones Act-compliant turbine installation vessel.

These highlights demonstrate that the scope of financing and contracting activities needed to roll out a first utility-scale project for offshore wind development is extensive. But with sufficient planning and resources, they can be achieved.

Successfully expanding leasing and development will require a concerted effort by regulatory agencies, developers, states and relevant stakeholders in order for projects to be developed on the scale needed to meet ambitious and important renewable energy goals.

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[1] For additional analysis, see Holland & Knight's alert, "California Legislature Passes Landmark Legislation to Bolster Offshore Wind Energy," Sept. 14, 2021.

[2] See 2019 U.S. Census Bureau Data.

[3] See Holland & Knight's alert, "Studies Find Gulf of Mexico Has Untapped Potential for Offshore Wind Development," May 21, 2020.